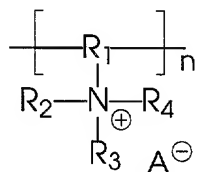


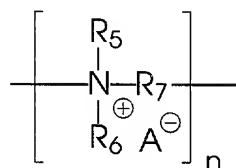
WHAT IS CLAIMED IS:

1. A process which comprises (a) preparing a first solution comprising water and an anionic dye; (b) preparing a second solution comprising water and a polyquaternary amine compound; (c) admixing the first solution and the second solution, thereby causing formation of a complex of the anionic dye and the polyquaternary amine compound and precipitation of the complex from the solution; and (d) isolating the complex thus formed.

2. A process according to claim 1 wherein the polyquaternary amine compound is of the formulae



or

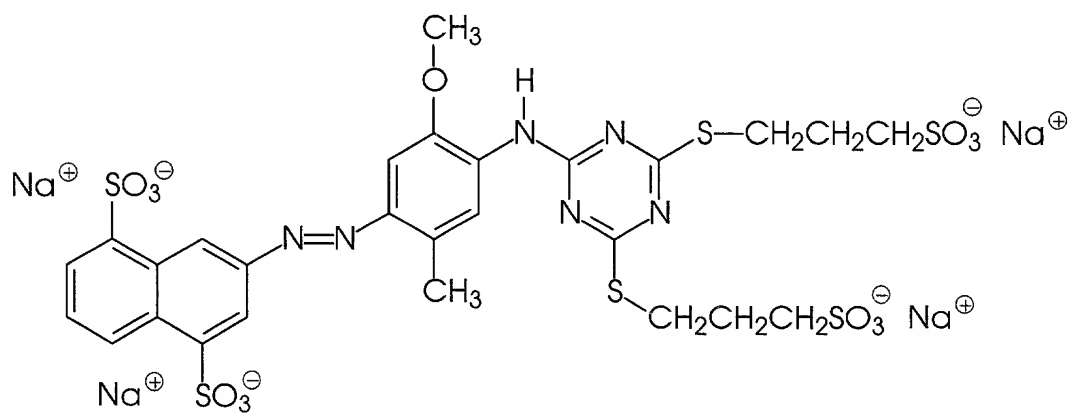


wherein n is an integer representing the number of repeat monomer units, R₁ and R₇ each, independently of the other, is an alkylene group, an arylene group, an arylalkylene group, or an alkylarylene group, and R₂, R₃, R₄, R₅, and R₆ each, independently of the others, are hydrogen atoms, alkyl groups, aryl groups, arylalkyl groups, or alkylaryl groups.

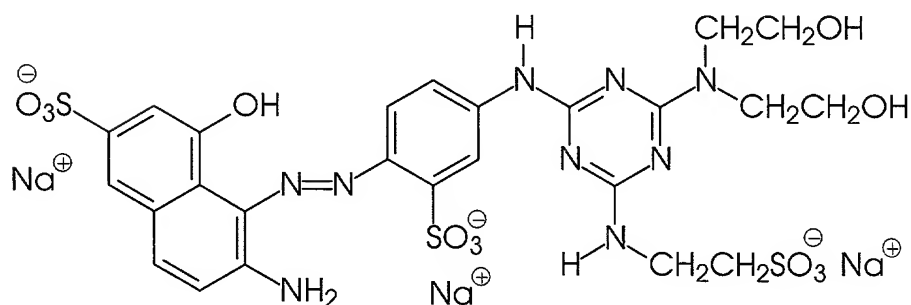
3. A process according to claim 1 wherein the polyquaternary amine compound is selected from the group consisting of polydiallyl ammonium compounds, polyquaternized polyvinylamines, polyquaternized polyallyl amines, epichlorohydrin/amine copolymers, cationic amido amine copolymers, copolymers of vinyl pyrrolidinone and a vinyl imidazolium salt, and mixtures thereof.

4. A process according to claim 1 wherein the polyquaternary amine compound is a polydiallyl dimethyl ammonium compound.

5. A process according to claim 1 wherein the anionic dye is (a) Acid Yellow 23, (b) Acid Red 52, (c) a magenta chlorotriazine dye with a molecular weight of 881 grams per mole and an empirical formula of $C_{30}H_{20}ClN_7O_{15}S_4$, (d) a dye of the formula



(e) a dye of the formula



(f) Acid Blue 9, (g) Direct Blue 199, or (h) mixtures thereof.

6. A process for preparing an ink composition which comprises (1) preparing a complex of an anionic dye and a polyquaternary amine compound by a process which comprises (a) preparing a first solution comprising water and an anionic dye; (b) preparing a second solution comprising water and a polyquaternary amine compound; and (c) admixing the first solution and the second solution, thereby causing formation of a complex of the anionic dye and the polyquaternary amine compound and precipitation of the complex from the solution; and (2) admixing the complex thus formed with an organic cosolvent.

7. A process according to claim 6 wherein the cosolvent is selected from the group consisting of ethylene glycol, propylene glycol, diethylene glycols, glycerine, dipropylene glycols, polyethylene glycols, polypropylene glycols, amides, ethers, urea, substituted ureas, ethers, carboxylic acids and their salts, esters, alcohols, organosulfides, organosulfoxides, sulfones, alcohol derivatives, carbitol, butyl carbitol, cellusolve, tripropylene glycol monomethyl ether, ether derivatives, amino alcohols, ketones, N-methylpyrrolidinone, 2-pyrrolidinone, cyclohexylpyrrolidone, hydroxyethers, amides, sulfoxides, lactones, polyelectrolytes, methyl sulfonylethanol, imidazole, betaine, and mixtures thereof.

8. A process according to claim 6 wherein the complex is further admixed with a nonpolymeric salt.

9. A process according to claim 8 wherein the nonpolymeric salt is present in the ink in an amount of at least about 0.1 percent by weight of the ink, and wherein the nonpolymeric salt is present in the ink in an amount of no more than about 40 percent by weight of the ink.

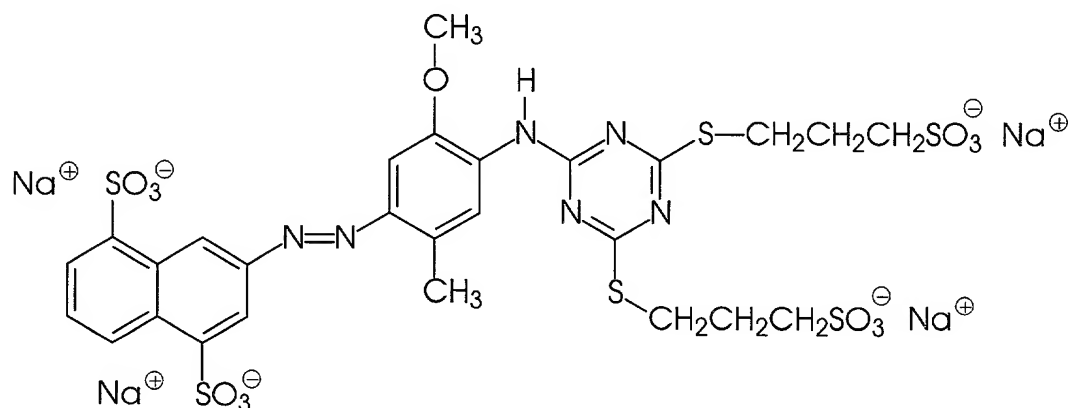
10. A composition comprising a complex of an anionic dye and a polyquaternary amine compound prepared by the process of claim 1.

11. A composition according to claim 10 wherein the polyquaternary amine is a poly(dimethyldiallyl ammonium) compound and the anionic dye is Acid Yellow 23.

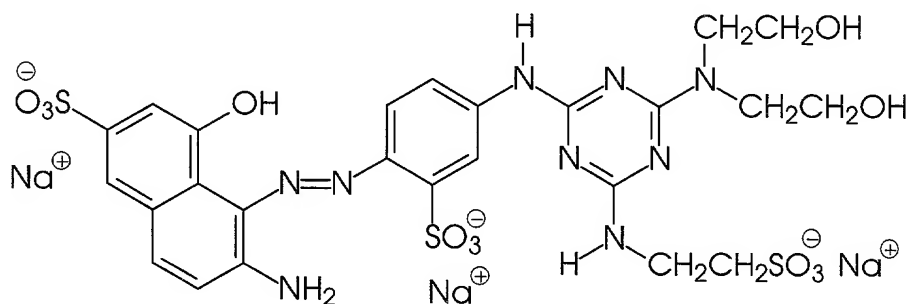
12. A composition according to claim 10 wherein the polyquaternary amine is a poly(dimethyldiallyl ammonium) compound and the anionic dye is Acid Red 52.

13. A composition according to claim 10 wherein the polyquaternary amine is a poly(dimethyldiallyl ammonium) compound and the anionic dye is a magenta chlorotriazine dye having a molecular weight 881 grams per mole and an empirical formula of $C_{30}H_{20}ClN_7O_{15}S_4$.

14. A composition according to claim 10 wherein the polyquaternary amine is a poly(dimethyldiallyl ammonium) compound and the anionic dye is of the formula



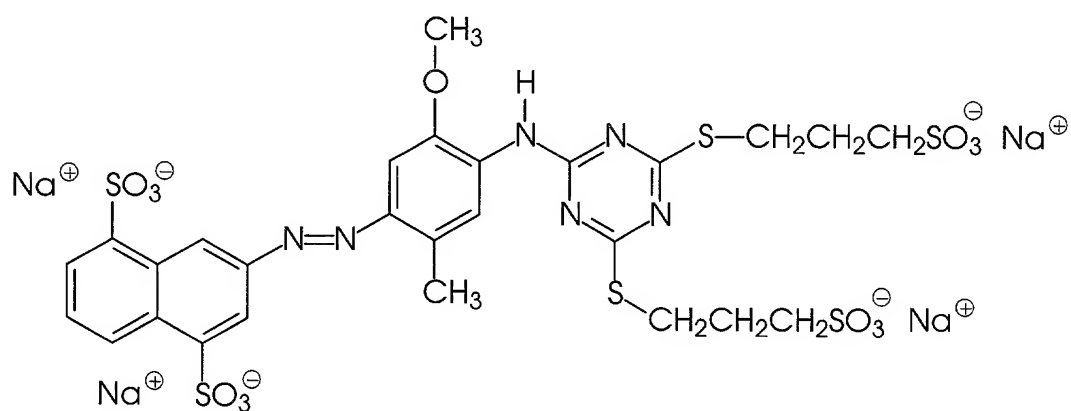
15. A composition according to claim 10 wherein the polyquaternary amine is a poly(dimethyldiallyl ammonium) compound and the anionic dye is of the formula



16. A composition according to claim 10 wherein the polyquaternary amine is a poly(dimethyldiallyl ammonium) compound and the anionic dye is Acid Blue 9.

17. A composition according to claim 10 wherein the polyquaternary amine is a poly(dimethyldiallyl ammonium) compound and the anionic dye is Direct Blue 199.

18. A composition according to claim 10 wherein the polyquaternary amine is a copoly(N-vinyl-N-methylimidazolium chloride/N-vinylpyrrolidone) and the anionic dye is of the formula



19. A process which comprises:

(A) preparing an ink composition by a process comprising:

(1) preparing a complex of an anionic dye and a polyquaternary amine compound by a process which comprises:

(a) preparing a first solution comprising water and an anionic dye;

(b) preparing a second solution comprising water and a polyquaternary amine compound; and

(c) admixing the first solution and the second solution, thereby causing formation of a complex of the anionic dye and the polyquaternary amine compound and precipitation of the complex from the solution; and

(2) admixing the complex thus formed with an organic cosolvent; and

(B) incorporating the ink composition into an ink jet printing apparatus and causing droplets of the ink composition to be ejected in an imagewise pattern onto a substrate.

20. A process according to claim 19 wherein the printing apparatus employs a thermal ink jet process wherein the ink in the nozzles is selectively heated in an imagewise pattern, thereby causing droplets of the ink to be ejected in imagewise pattern.